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Financial Cost

An update of reported paid medical claims associated with the existing cases of five selected cancers in Michigan are contained in this report. The financial data reflect treatment costs incurred annually for as many as eleven successive years, regardless of when the conditions became evident. The data contain costs associated with a range of treatments for patients at various stages in the course of their disease. Costs borne by patients and their families for deductibles, medications, home health care assistance and other non-medical expenses are not included in this analysis.

Medical costs are presented for each selected cancer site: breast, cervical, colorectal, lung and prostate. Medical costs are the direct costs incurred to secure medical treatment or costs that accrue to the health system. These costs include physician office visits, screening, counseling, diagnostic testing, hospitalization, and prescription drugs. Cost data associated with claims paid for self-insured and fee-for-service plans for the years 1996-2002 was made available from Blue Cross Blue Shield of Michigan¹ (BCBSM). Cost data associated with claims for the managed care plan, Blue Care Network (BCN), for 1999-2002, was also made available from BCBSM. Payment data for Medicare Part A and Medicare Part B were obtained from the Michigan Peer Review Organization and the Wisconsin Physician Service² respectively.

Ideally, medical costs reflect the true economic costs for goods and services. The true economic costs are equivalent to the value of foregone opportunities, otherwise described as opportunity costs. In the healthcare market, the terms medical costs and medical charges are often used interchangeably. However, medical charges typically do not represent the true economic costs of goods and services. The size and financial power of government and other large third-party payers greatly influence reimbursement to health systems for medical services. The ability of these entities to negotiate and pay discounted prices, accounts for significant discrepancies between costs and charges. The expenditures reported in this analysis reflect discounted medical costs or medical charges.

Reported medical charges were collected for a period of several years. To ensure that all charges are comparable, it is necessary to standardize all of the charges to the same year. The medical care component of the Consumer Price Index³ was used to adjust subsequent years to a specified base year. Based on the average value of 1982-84 as 100, the relative annual value for each year was used to adjust dollars to the 1996 base year.

Selected cancer hospitalization data was received from the statewide hospital discharge database at the Michigan Department of Community Health⁴. Hospital admissions data for BCBSM and Medicare patients were also received from Blue Cross Blue Shield of Michigan and the Michigan Peer Review Organization, respectively. In-situ cases are included in the BCBSM, Medicare, and hospitalization datasets. Analyses of hospital admissions, number and rates of

¹ Blue Cross Blue Shield of Michigan, Center for Healthcare Quality; and Blue Care Network of Michigan.

² Wisconsin Physician Service, Medicare Central Data Unit.

³ US Department of Labor, Bureau of Labor Statistics, *Bureau of Labor Statistics Data 1994-2004*.

⁴ Michigan Resident Hospitalizations Files, Michigan Department of Community Health (MDCH), Division for Vital Records and Health Statistics.

days of care, average length of hospital stays, and number and rates of hospital discharges are reported for the years 1991-2002.

Summary

BCBSM and BCN combined plans paid inpatient, outpatient, and professional claims charges totaling over \$203 million for the five cancer sites in Michigan during 2002. Paid charges during this year were 24% higher than paid charges the previous year. The BCBSM self-insured and fee-for-service plans alone posted a 31% increase, while the BCN managed care plan realized a 15% reduction in paid charges. Total hospital admissions for the selected cancer sites among the privately insured plans fluctuated from 7,724 admissions in 2000, down to 7,277 in 2001 (a 6% decrease), and back up to 7,861 admissions in 2002 (an 8% increase).

Michigan Medicare inpatient paid charges for breast, cervical, colorectal, lung, and prostate cancers totaled \$85 million in 2002, a 5% reduction from 2001. Medicare outpatient paid charges increased 6% from 2001 to 2002 for the 5 cancer sites in the state.

The average length of hospital stay associated with the five cancer sites continued a gradual downward trend in Michigan from 1991 through 2002. The rates of hospital days of care (patient days per 10,000 population) followed this same pattern during these years.

Breast Cancer

Breast cancer accounted for the highest level of BCBSM outpatient and professional service paid charges among the five reported cancers. Professional services associated with the fee-for-service and self-insured BCBSM plans more than doubled from 1996 to 2002 in terms of paid charges and number of patients served. BCBSM inpatient per case average charges decreased 2% from 2001 to 2002, the third consecutive annual decline.

The number of Medicare patients receiving inpatient treatment for breast cancer in Michigan decreased 15% from 2001 to 2002. While the Medicare inpatient per case average continued to decline (4% from 2001), the average length of hospital stay for these patients remained steady at 2.2 days.

Cervical Cancer

From 1996 to 2002, BCBSM inpatient per case average charges for cervical cancer treatment decreased 14%. From 1999 to 2002, BCN inpatient per case average charges decreased 15%. The average length of hospital stay fluctuated from year to year for both plan types.

Between 2001 and 2002, BCBSM and BCN per case average charges for cervical cancer outpatient services increased 7% and 5%, respectively. BCBSM per case average charges for professional claims increased 13% over the same timeframe.

Medicare inpatient services associated with cervical cancer incurred a 30% increase in per case average paid charges and a 25% increase in average length of hospital stay between 2001 and 2002.

Colorectal Cancer

BCBSM colorectal cancer per case average charges for inpatient treatment and professional services decreased 20% and 24%, respectively from 1996 to 2002. The average length of hospital

stay for BCBSM colorectal cancer patients increased from a 6-year low of 6.14 days in 2001 to 7.64 days in 2002, its highest level since 1998.

The downward trend in Medicare colorectal inpatient per case average charges continued. These charges decreased 13% from 1996 to 2002.

Lung Cancer

BCBSM per case average charges associated with inpatient treatment for lung cancer decreased 21% from 1996 to 2002. The number of hospital admissions attributable to this cohort decreased 20% over the same period. However the average length of hospital stay fluctuated. BCBSM also realized a 12% decrease in per case average charges for professional services attributable to lung cancer treatment from 1996 to 2002. Lung cancer outpatient per case average charges for this plan type rose 25% over the 7-year period. BCN inpatient per case average charges and number of hospital admissions decreased 25% and 28%, respectively from 1999 to 2002.

Medicare inpatient per case average charges and average length of hospital stay for lung cancer treatment declined 18% and 10% respectively, from 1996 to 2002. However, the number of Michigan Medicare patients receiving inpatient services for treatment of lung cancer increased 26% from 1996 to 2002.

Prostate Cancer

From 1996 to 2002, the BCBSM inpatient per case average charges and average length of hospital stay associated with prostate cancer treatment decreased 34% and 32%, respectively. However, BCBSM outpatient per case average charges increased 18% over the same period for this cancer site.

Medicare prostate cancer inpatient per case average charges and average length of hospital stay, both decreased 20%, from 1996 to 2002. The number of Medicare patients receiving inpatient services for the treatment of prostate cancer in Michigan rose from 1,992 in 1996 to 2,040 patients in 2002, a 2% increase.

Figure 1.

Percent of Total BCBSM Inpatient Payments
Made for the Selected Cancer Sites by Cancer Site,
Michigan 2002

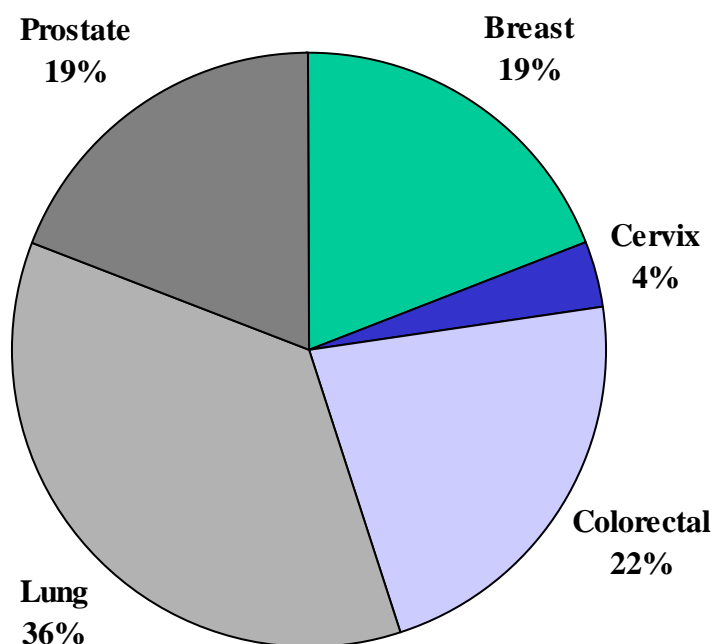


Figure 2.

Percent of Total BCBSM Professional Payments Made for the Selected Cancer Sites by Cancer Site, Michigan 2002

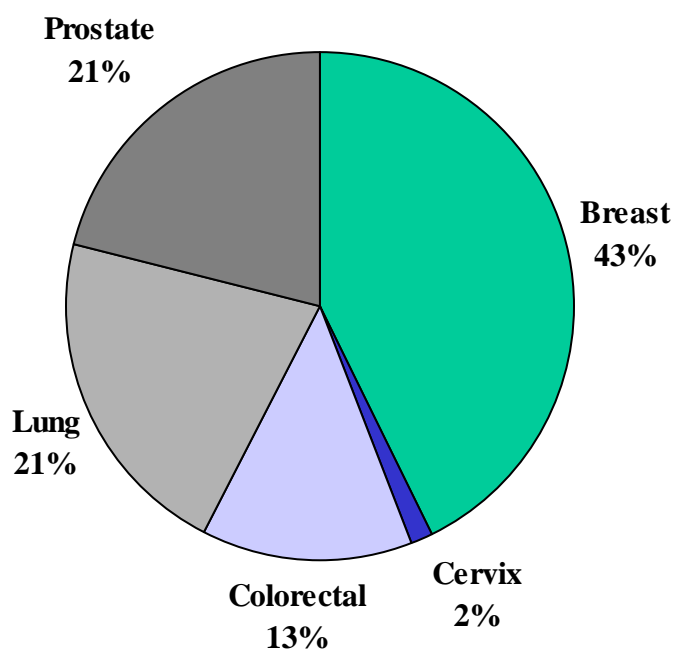


Figure 3.

Percent of Total BCBSM Outpatient Payments Made for the Selected Cancer Sites by Cancer Site, Michigan 2002

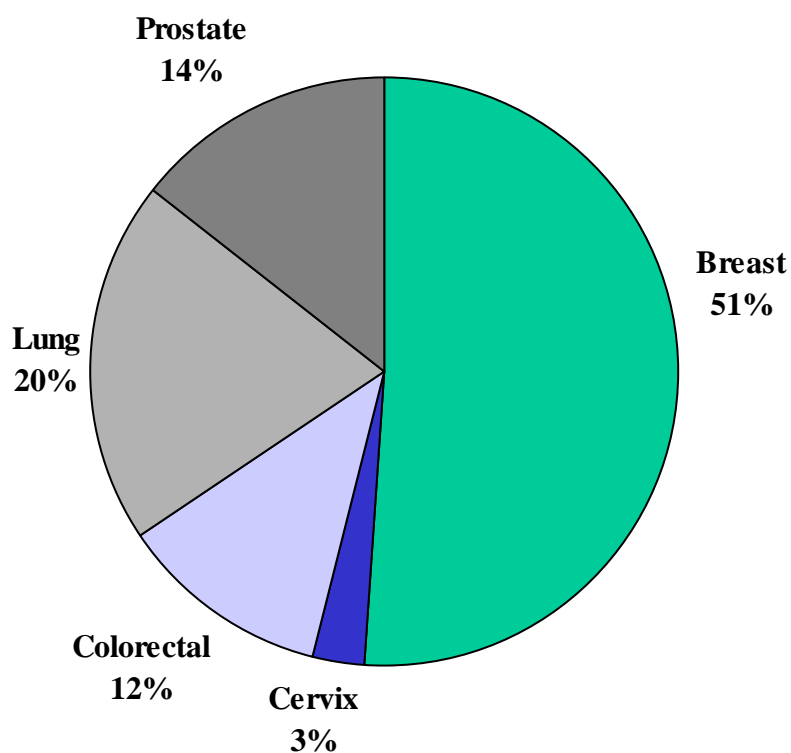


Figure 4.

Percent of Total Medicare Part A Payments
Made for the Selected Cancer Sites by Cancer Site,
Michigan 2002

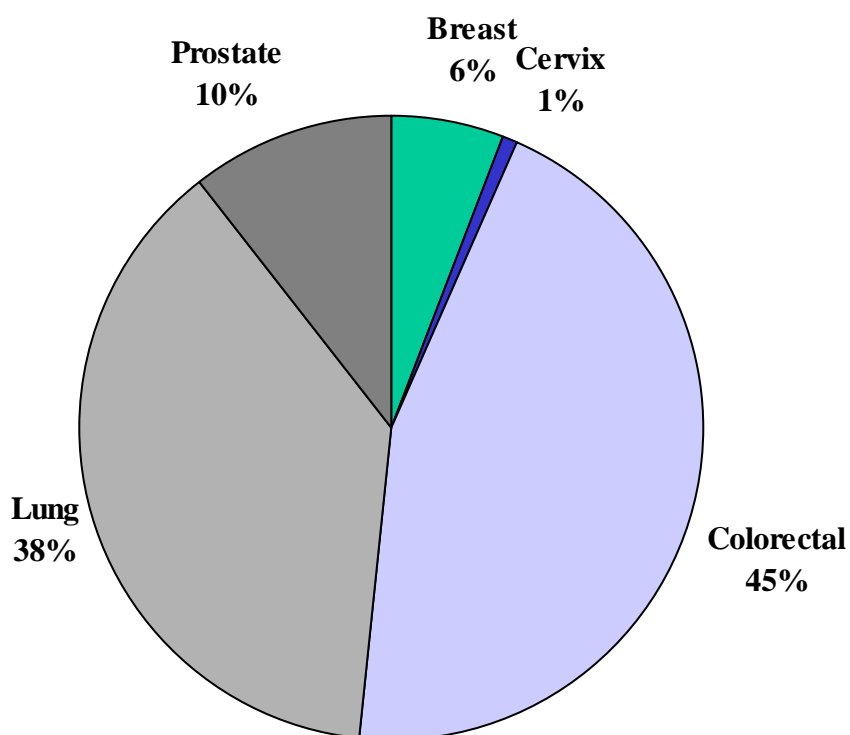


Figure 5.

Percent of Total Medicare Part B Payments
Made for the Selected Cancer Sites by Cancer Site,
Michigan 2002

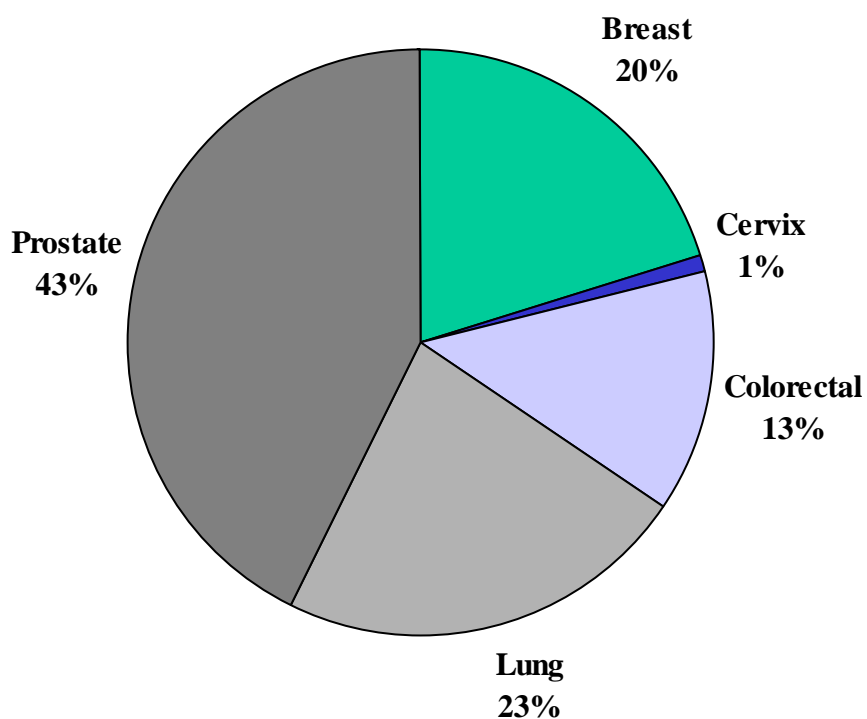


Figure 6.

Hospital Average Length of Stay by Cancer Site, Michigan 1991-2002

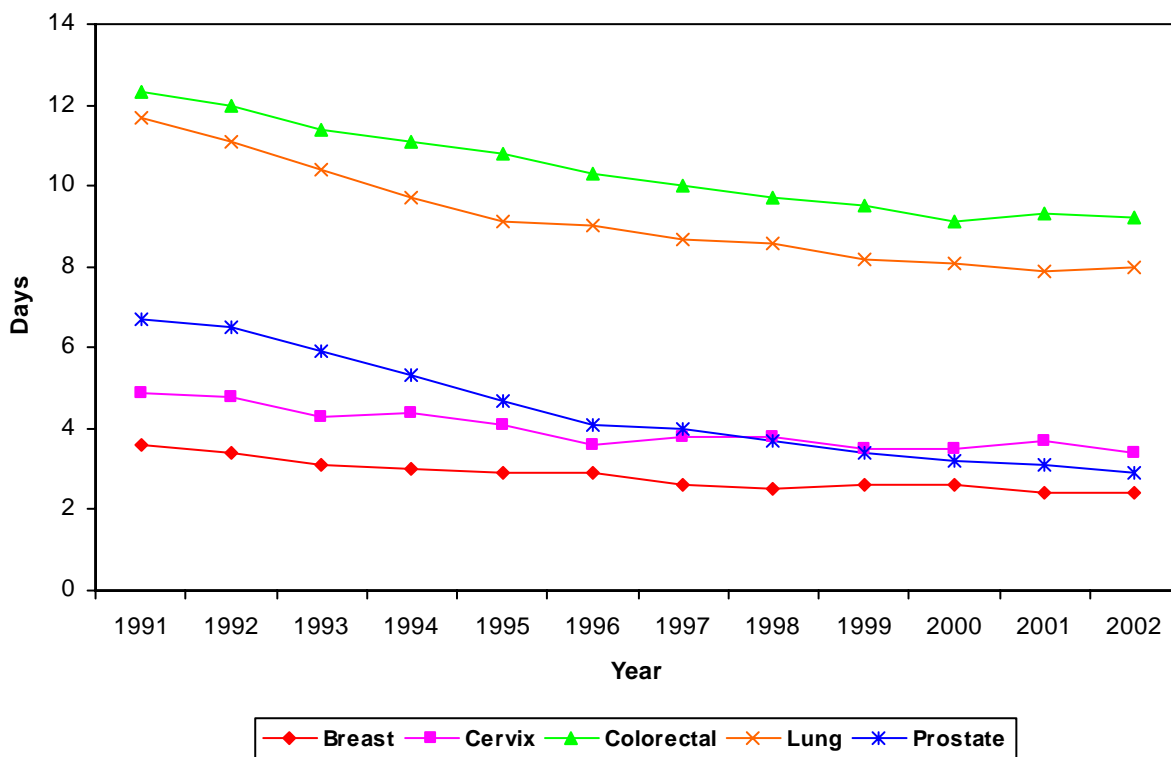


Figure 7.

Total Hospital Days of Care by Cancer Site, Michigan 1991-2002

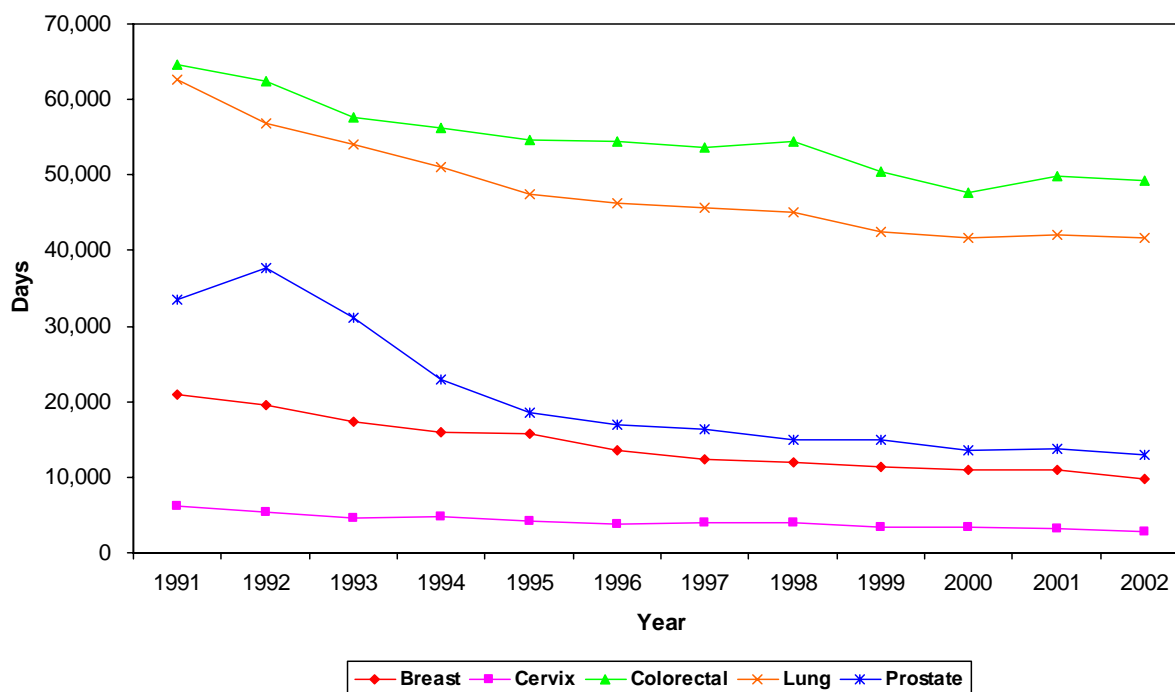


Figure 8.

Hospital Discharges by Cancer Site, Michigan 2002

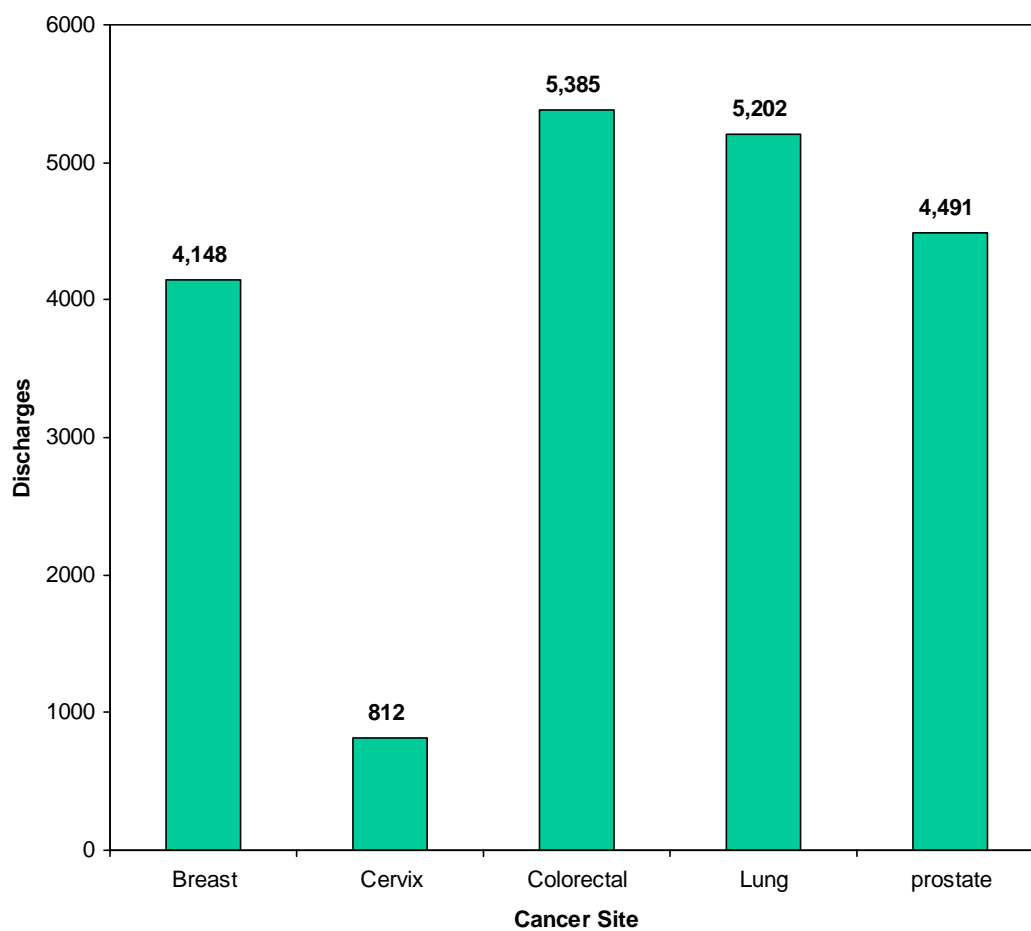
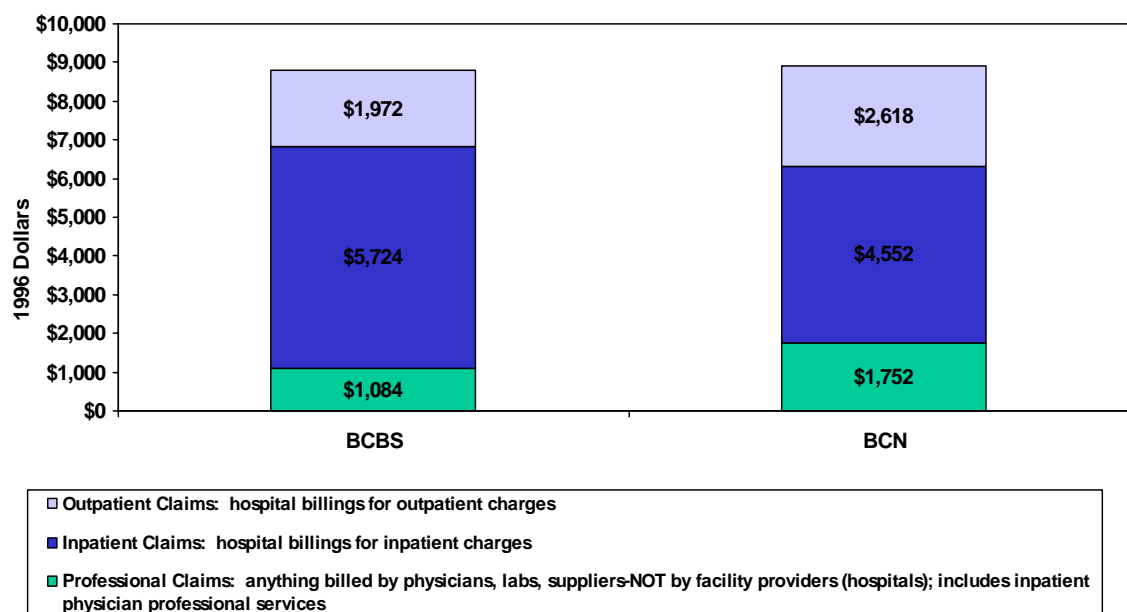


Figure 9.

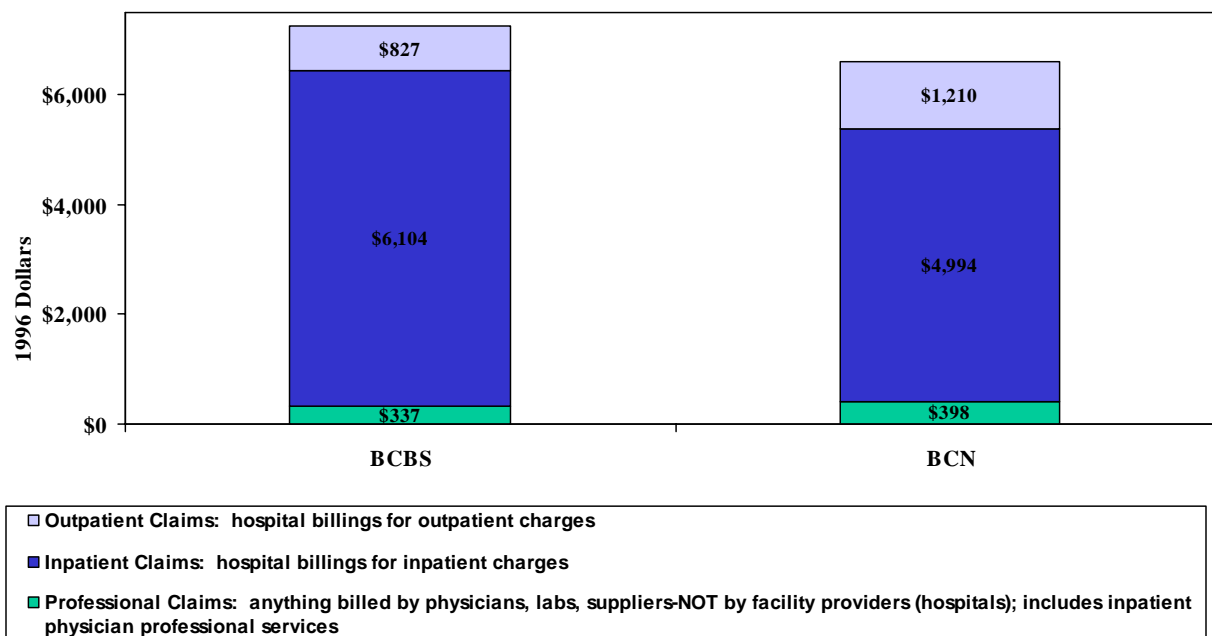
Breast Cancer 2002 Per Case Average BCBSM Payments by Type of Claim



BCBS: fee-for-service and self-insured plans
BCN: managed care plan

Figure 10.

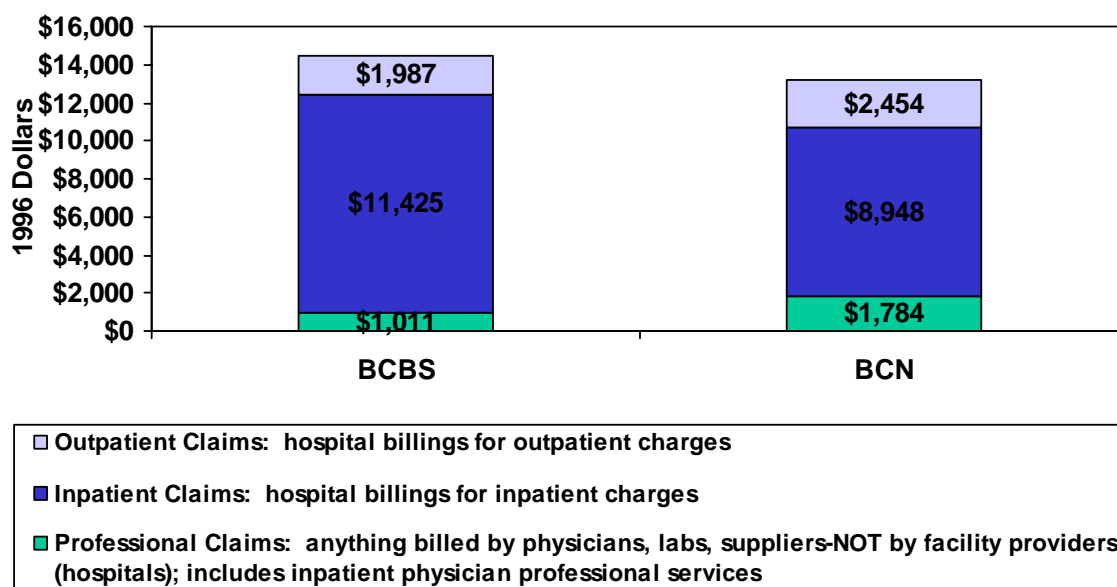
Cervical Cancer 2002 Per Case Average BCBSM Payments by Type of Claim



BCBS: fee-for-service and self-insured plans
BCN: managed care plan

Figure 11.

Colorectal Cancer 2002 Per Case Average BCBSM Payments by Type of Claim

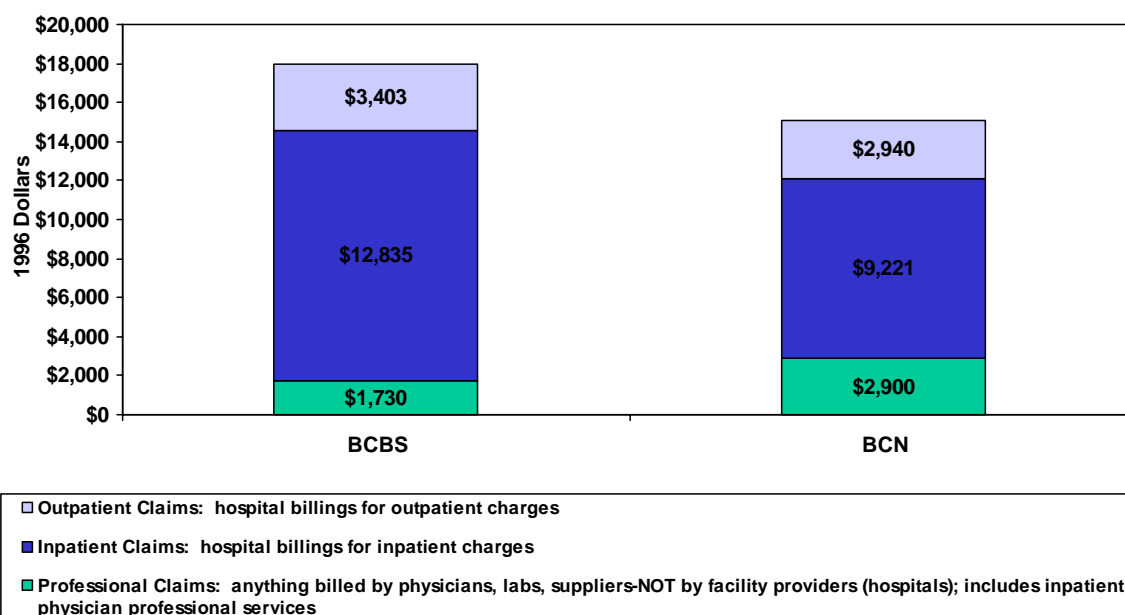


BCBS: fee-for-service and self-insured plans

BCN: managed care plan

Figure 12.

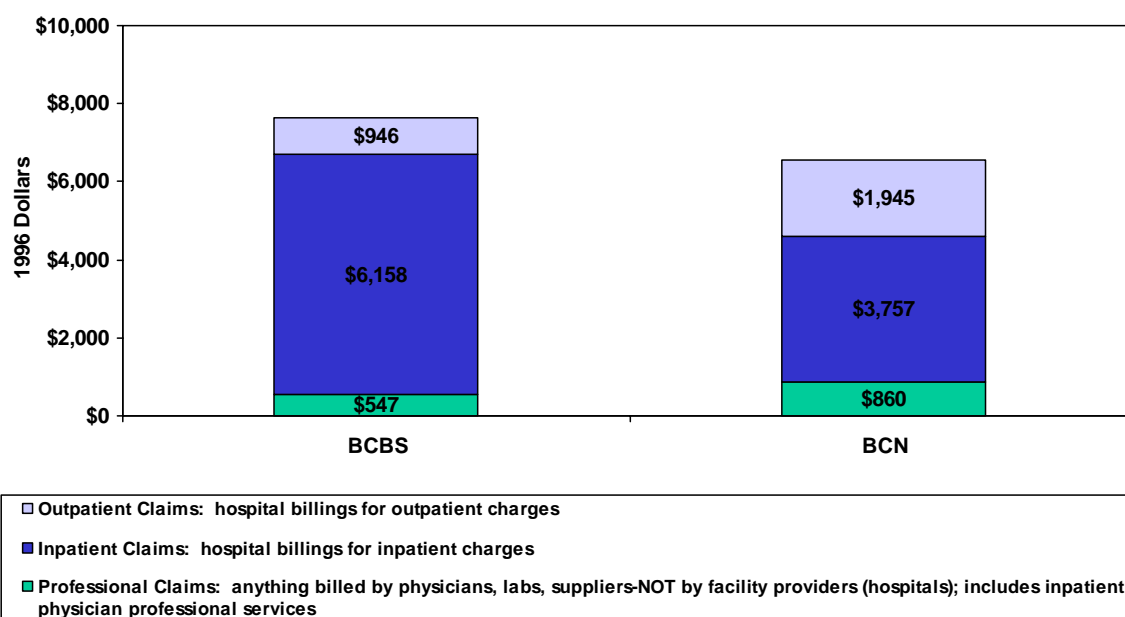
Lung Cancer 2002 Per Case Average BCBSM Payments by Type of Claim



BCBS: fee-for-service and self-insured plans
BCN: managed care plan

Figure 13.

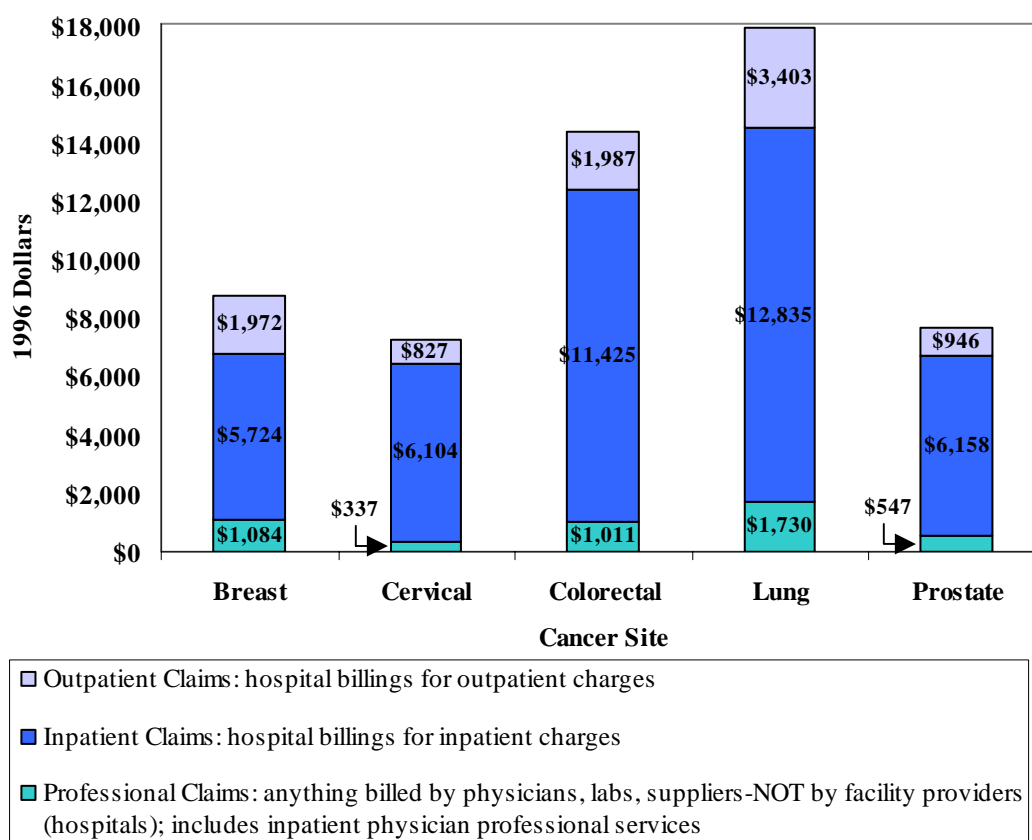
Prostate Cancer 2002 Per Case Average BCBSM Payments by Type of Claim



BCBS: fee-for-service and self-insured plans
BCN: managed care plan

Figure 14.

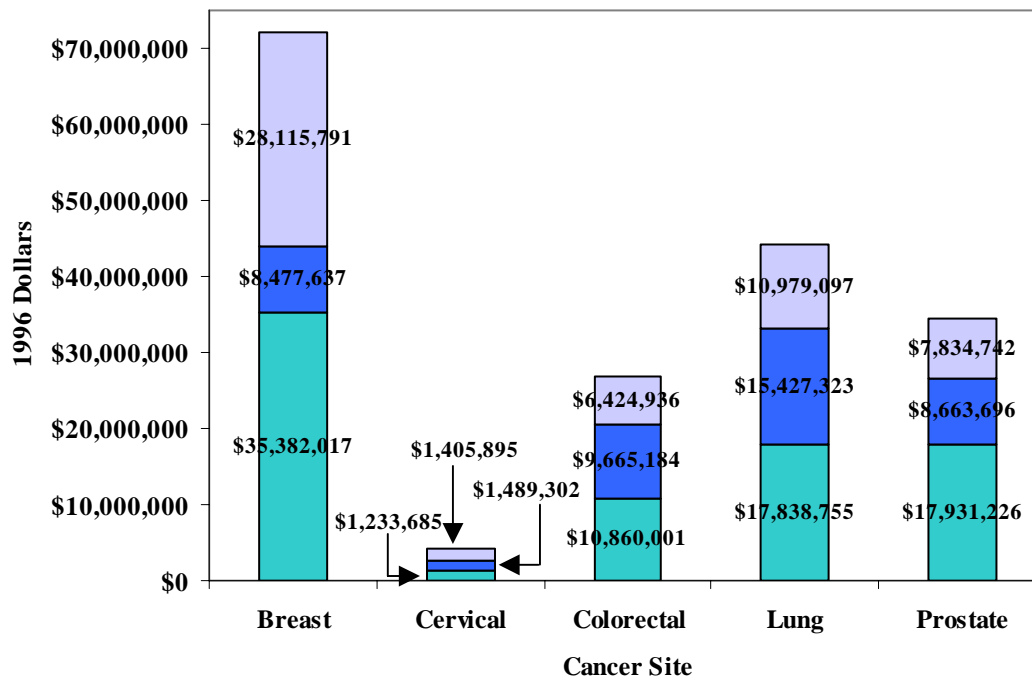
Per Case Average BCBSM* Payments by Type of Claim and Cancer Site (2002)



*Excludes managed care plan.

Figure 15.

Total BCBSM* Payments by Type of Claim and Cancer Site (2002)

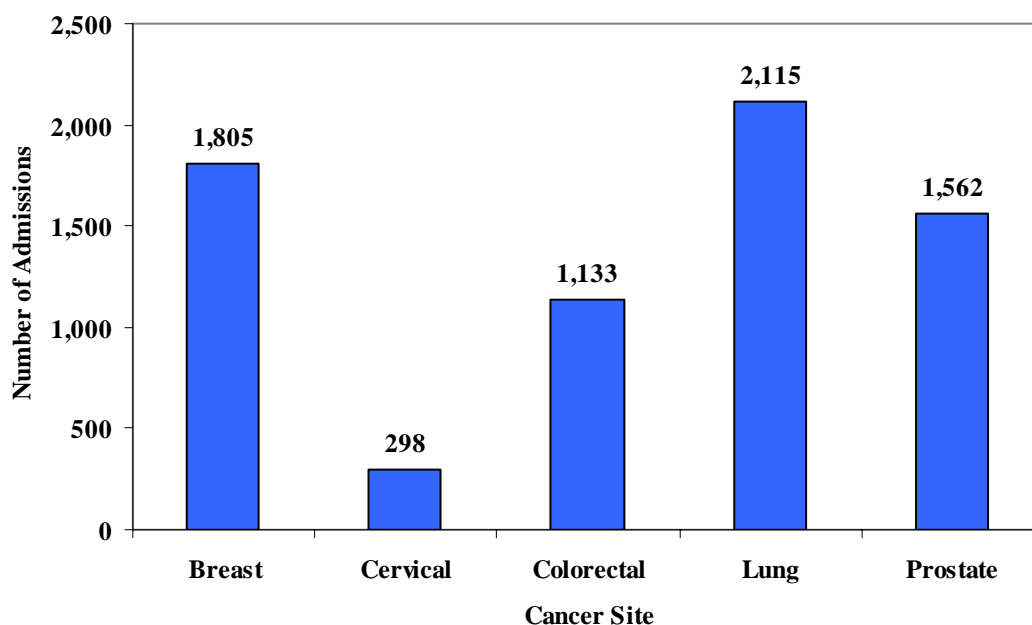


- Outpatient Claims: hospital billings for outpatient charges
- Inpatient Claims: hospital billings for inpatient charges
- Professional Claims: anything billed by physicians, labs, suppliers-NOT by facility providers (hospitals); includes inpatient physician professional services

*Excludes managed care plan.

Figure 16.

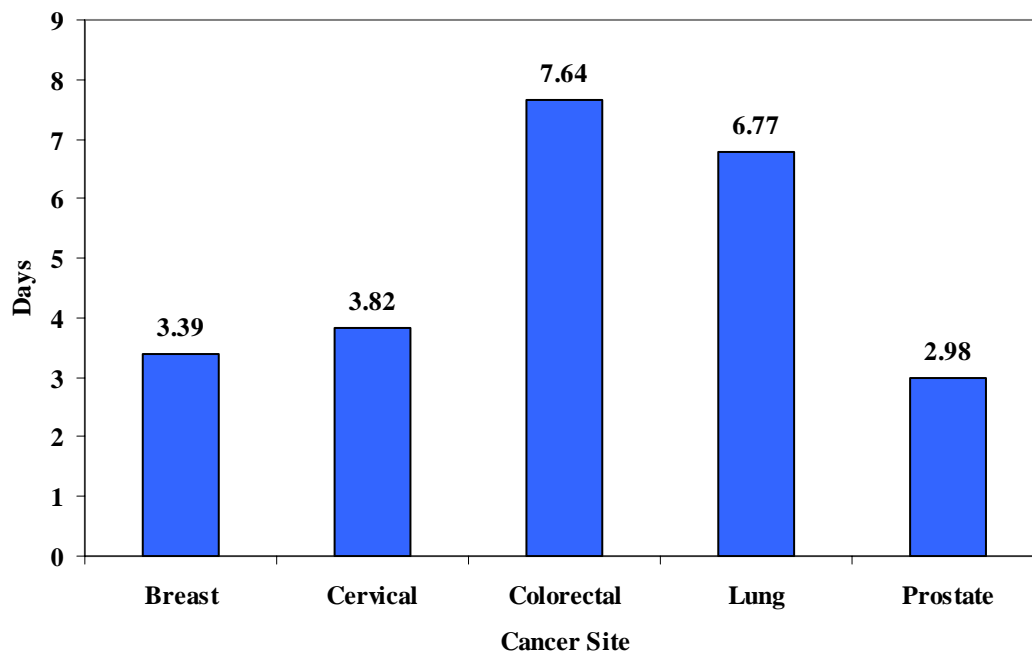
Number of Hospital Admissions for BCBSM* Inpatient Coverage Recipients by Cancer Site (2002)



*Excludes managed care plan.

Figure 17.

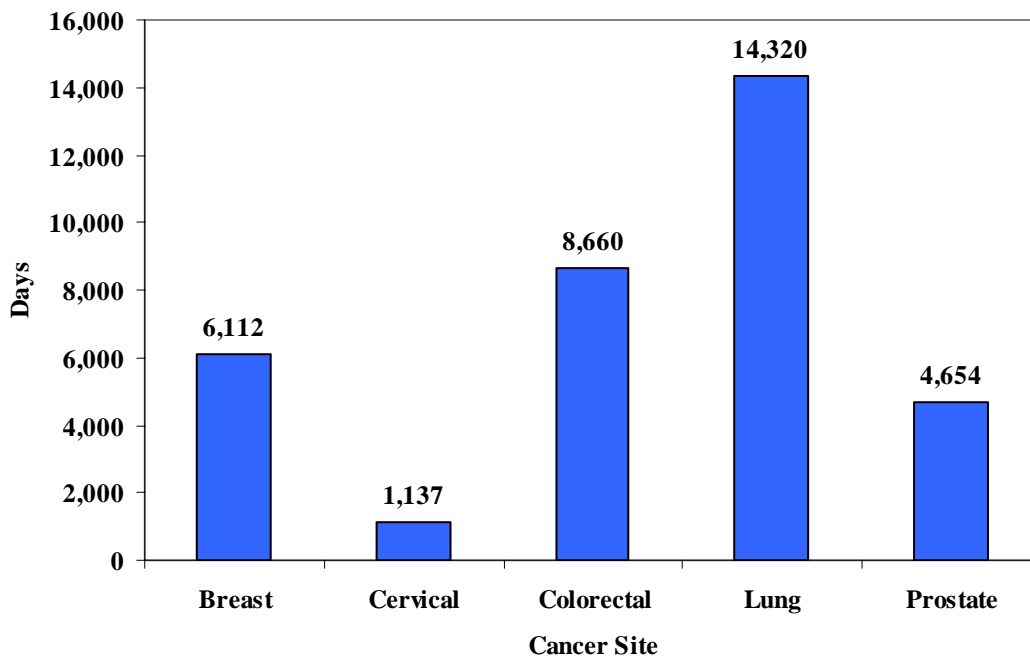
Hospital Average Length of Stay for BCBSM* Inpatient Coverage Recipients by Cancer Site (2002)



*Excludes managed care plan.

Figure 18.

Total Hospital Days of Care for BCBSM* Inpatient Coverage Recipients by Cancer Site (2002)



*Excludes managed care plan.

Figure 19.

Per Case Average Medicare Part A Payments By Cancer Site (2002)

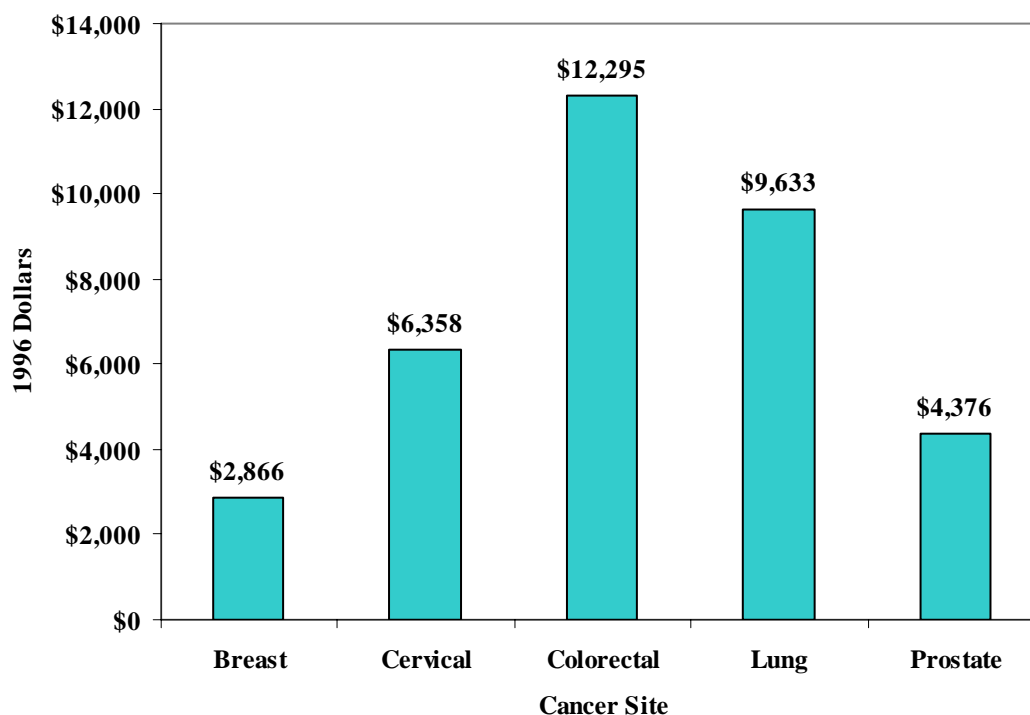


Figure 20.

Total Medicare Part A Payments By Cancer Site (2002)

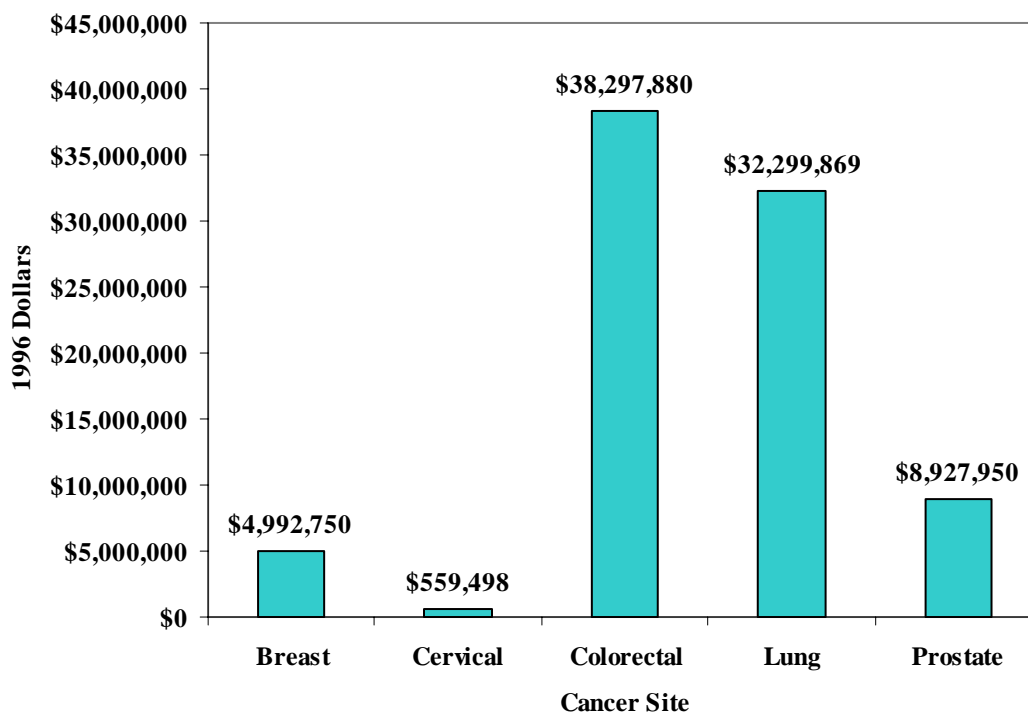


Figure 21.

Hospital Average Length of Stay for Medicare Part A Recipients by Cancer Site (2002)

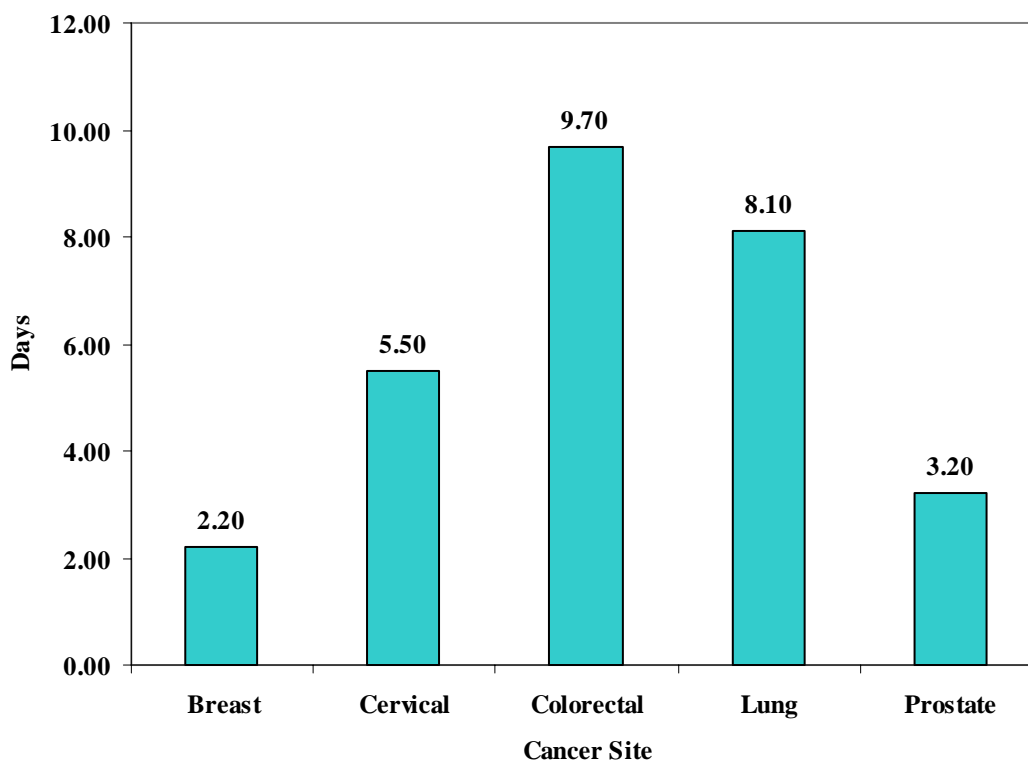


Figure 22.

Hospital Days of Care for Medicare Part A Recipients by Cancer Site (2002)

